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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/675,380

Applicant(s)

KARAOGUZ ET AL.

Examiner

SALMAN AHMED

Art Unit

2476

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/1/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-20 are rejected under 35 USC 101 as being non-statutory.

The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. See *In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. See *In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 24, 2009; p. 2.

The USPTO recognizes that applicants may have claims directed to computer readable media that cover signals *per se*, which the USPTO must reject under 35 U.S.C. § 101 as covering both non-statutory subject matter and statutory subject matter. In an effort to assist the patent community in overcoming a rejection or potential rejection under 35 U.S.C. § 101 in this situation, the USPTO suggests the following approach. **A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim.** Cf. *Animals – Patentability*, 1077 Off. Gaz. Pat. Office 24 (April 21, 1987) (suggesting that applicants add the limitation "non-human" to a claim covering a multi-cellular organism to avoid a rejection under 35 U.S.C. § 101). Such an amendment would typically not raise the issue of new matter, even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals *per se*. The limited situations in which such an amendment could raise issues of new matter occur, for example, when the specification does not support a non-transitory embodiment because a signal *per se* is the only viable embodiment such that the amended claim is impermissibly broadened beyond the supporting disclosure. See, e.g., *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2-8, 10-12, 14-18, 20-22, 24-28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochberger (US PAT 6272107) in view of Schwengler (US PAT 6678259) and DeKoning et al. (US PAT 6457098, hereinafter DeKoning).

Regarding claim 1, Rochberger teaches a method comprising: establishing a second communication path (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 24 and 26) that is independent of a first communication path (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 16 and 18) that couples at least two end points via at least a first broadband (i.e. ATM) network (column

10, lines 14-20, the principle of the method of the first embodiment is that two call paths are set up between the source and destination nodes: a primary call path and a redundant, i.e., secondary, call path. The two call paths are, however, associated with each other in the switching tables of the two end nodes, i.e., the source and destination nodes), wherein each network connection on first communication path (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 16 and 18) between at least two end points (column 10 line 20, two end nodes, i.e., the source and destination nodes), has a corresponding redundant network connection (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 24 and 26) on second communication path, and wherein first and second communication paths are of different types (column 10 lines 14-20, different types are satisfied by one path being primary and the other being redundant); and transferring information that would be normally transferred over first communication path between at least two endpoints via established second communication path over corresponding redundant network connection (column 12 lines 10-15, at this point, data flows from the source user to the destination user over the redundant path (which is now the active path). Both the source and destination users are unaware that a break occurred in the active path aside from a short interruption in the flow of data cells).

Rochberger does not explicitly teach, primary and secondary path being different communication type.

Schwengler in the same or similar field of endeavor teaches primary and secondary path being different communication type (Abstract, column 3 lines 53-55, the redundant or secondary communication path may be a different line of sight path to the

same or a different transmitter, or may be a lower frequency communication path. It is to be appreciated that this embodiment of the present invention, utilizing a primary and a secondary transmitter, allows a lower frequency non-line of sight link to be used as a backup for a primary communication path that does require line of sight).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger's system/method the steps of primary and secondary path being different communication type as suggested by Schwengler. The motivation is that (as suggested by Schwengler, column 4 lines 42-47) by using different communication types for primary and backup paths, network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Rochberger and Schwengler do not explicitly teach both of a first and a second communication paths are established through same plurality of network nodes.

DeKoning in the similar field of endeavor related to data communication teaches both of a first and a second communication paths are established through same plurality of network nodes (Figure 3, column 11 lines 4-21).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger and Schwengler's system/method the steps of both of a first and a second communication paths are established through

same plurality of network nodes as suggested by DeKoning. The motivation is that (as suggested by DeKoning, column 21 lines 53-64) such method provides enhanced redundancy. Known work (both of a first and a second communication paths are established through same plurality of network nodes) in one field of endeavor (DeKoning prior art) may prompt variations of it for use in either the same field or a different one (Rochberger and Schwengler prior art) based on design incentives (enhanced redundancy) or other market forces/market place incentives if the variations are predictable (multiple connection for enhanced redundancy is predictable) to one of ordinary skill in the art.

In regards to claim 2, Rochberger teaches provisioning said established second communication path for handling communication functions (column 7 lines 12-32).

Regarding claim 4, Rochberger teaches temporarily storing the information during the transferring of the information between the at least two endpoints via the established second communication path (Figure 4, switch tables).

Regarding claim 5, Rochberger teaches the first communication path is a physical communication path (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 16 and 18).

Regarding claim 6, Rochberger teaches the second communication path is a logical communication path (column 7 lines 12-32, SVC).

Regarding claim 7, Rochberger teaches the second communication path is at least one of a circuit switched connection and a packet switched connection (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 24 and 26 having SVC over ATM).

Regarding claim 8, Rochberger teaches the at least two endpoints comprises a first source endpoint and at least a first destination endpoint (column 10, lines 14-20, the principle of the method of the first embodiment is that two call paths are set up between the source and destination nodes: a primary call path and a redundant, i.e., secondary, call path. The two call paths are, however, associated with each other in the switching tables of the two end nodes, i.e., the source and destination nodes).

Regarding claim 10, Rochberger teaches the second and the first communication path comprises at least one of a wired (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 24 and 26 having ATM) and a wireless communication link.

Regarding claims 11, 12-18 and 20, Rochberger teaches a computer-readable medium having stored thereon, a computer program having at least one code section (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated hardware and software) and in view of Schwengler and DeKoning disclose all the limitations as discussed in the rejection of claims 1, 2, 4-8 and 10 and are therefore apparatus claims 11, 12-18 and 20 are rejected using the same rationales.

Regarding claims 21, 22, 24-28 and 30, Rochberger teaches a system comprising one processor executing a provisioning protocol (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated hardware and software related to provisioning protocol) and in view of Schwengler and DeKoning disclose all the limitations as discussed in the rejection of claims 1, 2, 4-8 and 10 and are therefore apparatus claims 21, 22, 24-28 and 30 are rejected using the same rationales.

Regarding claim 31 Rochberger teaches at least one processor comprises one or more of a media processing system processor, a media management system processor, a computer processor (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated processor hardware), a media exchange software processor and a media peripheral processor.

4. Claims 3, 9, 13, 19, 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochberger, Schwengler and DeKoning in view of Doi et al. (US6970919, hereinafter Doi).

In regards to claim 3, Rochberger, Schwengler and DeKoning teach all the limitations of claim 1 above.

Rochberger, Schwengler and DeKoning do not explicitly teach provisioned communication functions further comprises at least one or more of operations administration maintenance and provisioning (OAM&P), roaming, user authentication, media transfer, caching, storage management and addressing management.

Doi in the same or similar field of endeavor teaches provisioned communication functions further comprises at least one of operations administration maintenance and provisioning (OAM&P), roaming, user authentication (see column 12 line 44-49), media transfer(see column 4 line 29-34), caching, storage management (see column 4 line 5) and addressing management (see column line 24-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger, Schwengler and DeKoning's system/method the steps of provisioned communication functions further comprises at

least one or more of operations administration maintenance and provisioning (OAM&P), roaming, user authentication, media transfer, caching, storage management and addressing management as suggested by Doi. The motivation is that provisioning diverse usage of a communication link makes the network robust and flexible. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

In regards to claim 9, Rochberger, Schwengler and DeKoning do not explicitly teach the at least two endpoints is at least one of media processing systems, media peripherals, personal computers, third (3rd) party media providers, third (3rd) party storage vendors and channel information servers.

Doi in the same or similar field of endeavor teaches the at least two endpoints is at least one of media processing systems, media peripherals (see column 5 line 3), personal computers, third (3rd) party media providers (see column 4 line 5-6 and figure 1 box 3- 1, 3-2, and 3-3), third (3rd) party storage vendors (see figure 1 box 2) and channel information servers (see figure 2 box 13 VOD service).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger, Schwengler and DeKoning's system/method the steps of at least two endpoints is at least one of media processing systems, media peripherals, personal computers, third (3rd) party media providers, third (3rd) party storage vendors and channel information servers as suggested by Doi. The motivation is that provisioning diverse type of devices for usage of a broadband communication link makes the network robust and flexible for the end users. Known

work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claims 13 and 19, Rochberger teaches a computer-readable medium having stored thereon, a computer program having at least one code section (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated hardware and software) and disclose all the limitations as discussed in the rejection of claims 3 and 9 and are therefore apparatus claims 13 and 19 are rejected using the same rationales.

Regarding claims 23 and 29, Rochberger teaches a system comprising one processor executing a provisioning protocol (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated hardware and software related to provisioning protocol) and disclose all the limitations as discussed in the rejection of claims 3 and 9 and are therefore apparatus claims 23 and 29 are rejected using the same rationales.

Response to Arguments

5. Applicant's arguments see pages 10-21 of the Remarks section, filed 4/1/2010, with respect to the rejections of the claims have been fully considered and are not persuasive.
6. Applicant argues (see pages 13-) that Putting aside for the moment whether or not this is an accurate assessment of Schwengler, the Examiner has failed to provide "articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness" in the detailed manner described in KSR. The Examiner fails to explain

any plausible motivation for making this combination. The Examiner also makes the unsupported allegation that "by using different communication types for primary and backup paths, network can be made to be more reliable in case of failure in the primary path." (See OA, p. 3.). The Examiner provides no explanation of how Rochberger's network would allegedly be enhanced and made more reliable. Notably, the Examiner has ignored the fact that Rochberger relates to Asynchronous Transfer Mode (ATM) networks, which are based on wired data transmissions. Why would a person of ordinary skill in the art incorporate Schwengler's alleged teaching ("primary and secondary path being different communication type") into Rochberger's wired ATM system if, Schwengler addresses a problem with wireless transmissions in a Local Multipoint Distribution System (LMDS)? The answer is that a person of ordinary skill in the art simply would not make this combination. There would be no need to use primary and secondary paths of different communication type to remedy "large obstruction" problems in line of site transmissions, since such problems would not exist (and are not an issue) with ATM wired transmissions disclosed by Rochberger.

7. However, Examiner respectfully disagrees with Applicant's assertion. Firstly, in response to applicant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Secondly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger's system/method the steps of primary and secondary path being different communication type as suggested by Schwengler. The motivation is that (as suggested by Schwengler, column 4 lines 42-47) by using different communication types for primary and backup paths, network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault.

Examiner submits that the following are some rationales which may be used when formulating a 103 rejection:

(1) Combining prior art elements according to known methods to yield predictable results.

(2) Simple substitution of one known element for another to obtain predictable results.

(3) Use of known techniques to improve similar devices (methods or products) in the same way.

(4) Applying a known technique to a known device (method or product) ready for improvement to yield predictable results.

(5) "Obvious to try" - choosing from a finite number of identified, predictable solutions.

(6) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market

forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

(7) The TSM test. (Although the Supreme Court cautioned against an overly rigid application of TSM, it also recognized that TSM was one of a number of valid rationales that could be used to determine obviousness)

Examiner respectfully submits that, Examiner has indeed met "articulated reasoning with some rational underpinnings to support the legal conclusion of obviousness" for the reasons as follows:

1) Examiner has shown, the combination based on TSM test -The motivation is that (as suggested by Schwengler, column 4 lines 42-47) by using different communication types for primary and backup paths, network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault.

2) Use of known techniques (primary and secondary path being different communication type) to improve (network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault) similar devices (methods or products of Rochberger and Schwengler prior art) in the same way.

3) Known work (primary and secondary path being different communication type) in one field of endeavor (Schwengler prior art) may prompt variations of it for use in either the same field or a different one (Rochberger prior art) based on design

incentives (network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault) or other market forces/market place incentives if the variations are predictable (network can be made to be more reliable in case of failure) to one of ordinary skill in the art.

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

9. Applicant argues that (page 17) Schwengler only relates to transmissions in the Microwave band of the spectrum (e.g., frequencies greater than 12 GHz and going up to 30 GHz, which is the typical frequency range for LMDS type communications using line of site transmission). (See Schwengler, col. 3, lines 11-17). In this regard, even though Schwengler discloses using different communication paths or different frequencies for a given communication path, the fact remains that Schwengler uses only one type of communication path, e.g., in the Microwave band. Therefore, Schwengler does not overcome the deficiencies of Rochberger.

10. However, Examiner respectfully disagrees with Applicant's assertion. The current claim language is broad and in view of the broadest reasonable interpretation of the

claim language Scgwebgler does indeed teach the cited limitations. Specifically, Schwengler in the same or similar field of endeavor teaches primary and secondary path being different communication type (Abstract, column 3 lines 53-55, the redundant or secondary communication path may be a different line of sight path to the same or a different transmitter, or may be a lower frequency communication path. It is to be appreciated that this embodiment of the present invention, utilizing a primary and a secondary transmitter, allows a lower frequency non-line of sight link to be used as a backup for a primary communication path that does require line of sight).

11. Applicant argues that (page 18) even though DeKoning discloses redundant connections (between RDACs 118.1, 118.2 and disk arrays 108, 108.1), such connections are just duplicative connections of the same type (FC-AL) as the main connections.

12. However, Examiner respectfully disagrees with Applicant's assertion. Schwengler teaches primary and secondary paths being different communication type, while DeKoning teaches first and a second communication paths are established through same plurality of network nodes. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SALMAN AHMED whose telephone number is (571)272-8307. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Salman Ahmed/

Primary Examiner, Art Unit 2476